# ACTIVE IMMUNOTHERAPY OF METASTATIC RENAL CELL CARCINOMA USING AUTOLOGOUS DENDRITIC CELLS TRANSFECTED WITH AUTOLOGOUS RENAL TUMOR RNA

## NON-TECHNICAL ABSTRACT

The purpose of this research is to develop a new and powerful type of immune therapy for patients with metastatic renal cell carcinoma. This therapy involves vaccinations with special stimulator cells found in the human body called dendritic cells. These dendritic cells can take up proteins released from cancer cells and present pieces of these proteins to immune cells called T lymphocytes to create a strong stimulatory signal to fight the cancer.

Unfortunately, in most cancer patients, the immune system does not adequately destroy the tumor because the T cells are not stimulated sufficiently. T cells require strong stimulation before they grow and become active against tumor cells.

We have discovered that substances called ribonucleic acids (RNA), which carry the genetic instructions for the production of these proteins can be used to overcome this problem and stimulate a strong immune response in cancer patients.

In order to test this hypothesis we have designed this study and will enroll patients with metastatic renal cell carcinoma in order to determine whether or not this vaccine will stimulate T cells, which can recognize and kill renal tumor cells in the patient's body.

The main objectives of this study are to find out whether injections with dendritic cells grown from blood cells and "pulsed" (mixed together for a short period of time) with RNA derived from the patient's own tumor are:

a) Safe without inducing any major side effects.

b) and effective in boosting the patients body's immunity against renal tumor cells.

c) Finally we will test whether or not tumor shrinkage based on X-ray studies will occur.

We hope that this new form of immune therapy, although in its infancy, will ultimately slow down tumor growth and prolong survival of patients with metastatic renal cancer.